

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A reagent, comprising: ~~for amplifying the amyloid fibrosis of amyloid β protein, which comprises a peptide consisting of 14 to 23 residues of amyloid β peptide [hereinafter, abbreviated as Aβ (14-23)] or a peptide derived from the peptide by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively charged side chain amino acids thereof with Glu~~
a peptide represented by the following general formula [1]:

R-Lys-Gln-Lys-Leu-Leu-X-Y-Leu-Glu-Glu-R' [1] (SEQ ID NO. 1)

wherein R represents a hydrogen atom or an amino-protecting group,

wherein X-Y represents Leu-Leu, Leu-Phe or Phe-Leu, and

wherein R' represents OH or NH₂.

2. (Currently Amended) The reagent according to claim 1, ~~wherein the peptide derived from Aβ (14-23) by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively charged side chain amino acids thereof with Glu is further subjected to substitution of one or more hydrophobic residues in the peptide chain by other hydrophobic amino acid residues~~

wherein said peptide is

R-Lys-Gln-Lys-Leu-Leu-Leu-Leu-Glu-Glu-R' (SEQ ID NO. 2),

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

3. (Currently Amended) The reagent according to claim 1, ~~wherein the peptide derived from A β (14-23) by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively charged side chain amino acids thereof with Glu is further subjected to substitution of all hydrophobic residues in the peptide chain with Leu or to substitution of all hydrophobic residues in the peptide chain, except for Phe at the position 3 or 4 from the N-terminal side of a hydrophobic site, with Leu, or to substitution of the position 3 from the N-terminal side of the hydrophobic site with Ala and all of the remaining hydrophobic residues with Leu~~

wherein said peptide is

R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Glu-Glu-R (SEQ ID NO. 3)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

4. (Withdrawn/Currently Amended) A method of amplifying the amyloid fibrosis of amyloid β -protein, ~~which comprises using comprising the step(s) of:~~
~~using a reagent containing a peptide [A β (14-23)] consisting of 14 to 23 the 14th to 23rd residues of amyloid β -peptide or a peptide derived from the peptide by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively~~

~~charged side chain amino acids thereof with Glu~~ a peptide represented by the following general formula [1]:

R-Lys-Gln-Lys-Leu-Leu-X-Y-Leu-Glu-Glu-R' [1] (SEQ ID NO. 1)

wherein R represents a hydrogen atom or an amino-protecting group,

wherein X-Y represents Leu-Leu, Leu-Phe or Phe-Leu, and

wherein R' represents OH or NH₂.

5. (Withdrawn/Currently Amended) The method according to claim 4, ~~wherein the peptide derived from Aβ (14-23) by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively charged side chain amino acids thereof with Glu is further subjected to substitution of one or more hydrophobic residues in the peptide chain with other hydrophobic amino acid residues~~

wherein said peptide is

R-Lys-Gln-Lys-Leu-Leu-Leu-Glu-Glu-R' (SEQ ID NO. 2)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

6. (Withdrawn/Currently Amended) The method according to claim 4, ~~wherein the peptide derived from Aβ (14-23) by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively charged side chain amino acids thereof with Glu is further subjected to substitution of all hydrophobic residues in the peptide~~

~~chain with Leu or to substitution of all hydrophobic residues in the peptide chain, except for Phe at the position 3 or 4 from the N-terminal side of a hydrophobic site, by Leu, or to substitution of the position 3 from the N-terminal side of the hydrophobic site with Ala and all of the remaining hydrophobic residues with Leu~~

wherein said peptide is

R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Glu-Glu-R (SEQ ID NO. 3)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

7-10. (Cancelled)

11. (Withdrawn/Currently Amended) A method of detecting disease attributable to amyloidosis, ~~which comprises using comprising the step(s) of:~~

~~using a reagent containing a peptide [Aβ (14-23)] consisting of 14 to 23 the 14th to 23rd residues of amyloid β-peptide or a peptide derived from the peptide by substituting all positively charged side chain amino acids thereof with Lys and simultaneously substituting all negatively charged side chain amino acids thereof with Glu~~

a peptide represented by the following general formula [1]:

R-Lys-Gln-Lys-Leu-Leu-X-Y-Leu-Glu-Glu-R' [1] (SEQ ID NO. 1)

wherein R represents a hydrogen atom or an amino-protecting group,

wherein X-Y represents Leu-Leu, Leu-Phe or Phe-Leu, and

wherein R' represents OH or NH₂.

12. (Withdrawn/Currently Amended) The detection method according to claim 11,
~~wherein the peptide derived from Aβ (14-23) by substituting all positively charged side chain
amino acids thereof with Lys and simultaneously substituting all negatively charged side chain
amino acids thereof with Glu is further subjected to substitution of one or more hydrophobic
residues in the peptide chain with other hydrophobic amino acid residues~~

wherein said peptide is

R-Lys-Gln-Lys-Leu-Leu-Leu-Leu-Glu-Glu-R' (SEQ ID NO. 2)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents
OH or NH₂.

13. (Withdrawn/Currently Amended) The detection method according to claim 11,
~~wherein the peptide derived from Aβ (14-23) by substituting all positively charged side chain
amino acids thereof with Lys and simultaneously substituting all negatively charged side chain
amino acids thereof with Glu is further subjected to substitution of all hydrophobic residues in
the peptide chain with Leu or to substitution of all hydrophobic residues in the peptide chain,
except for Phe at the position 3 or 4 from the N-terminal side of a hydrophobic site, by Leu, or to
substitution of the position 3 from the N-terminal side of the hydrophobic site with Ala and all of
the remaining hydrophobic residues with Leu~~

wherein said peptide is

R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Glu-Glu-R (SEQ ID NO. 3)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

14. (Withdrawn) The detection method according to claim 11, wherein the disease attributable to amyloidosis is Alzheimer's disease.

15. (Currently Amended) A peptide represented by the following general formula [1]:

R-Lys-Gln-Lys-Leu-Leu-X-Y-Leu-Glu-Glu-R'[1] (SEQ ID NO. 1)

wherein R represents a hydrogen atom or an amino-protecting group,

wherein X-Y represents Leu-Leu, Leu-Phe or Phe-Leu, X represents Leu or Phe, Y represents Leu or Phe, and

wherein R' represents OH or NH₂.

16. (Currently Amended) The peptide according to claim 15, ~~which is represented by the formula: wherein said peptide is R-Lys-Gln-Lys-Leu-Leu-Leu-Glu-Glu-R'~~ (SEQ ID NO. 1) (~~SEQ ID NO. 2~~) ~~wherein R and R' have the same meanings as defined above~~
wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

17. (Currently Amended) The peptide according to claim 15, ~~which is represented by the~~

~~formula: wherein said peptide is R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Glu-Glu-R' (SEQ ID NO. 1) (SEQ ID NO. 3) wherein R and R' have the same meanings as defined above wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.~~

18. (Currently Amended) The peptide according to claim 15, ~~which is represented by the formula: wherein said peptide is R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Glu-Glu-R' (SEQ ID NO. 1) (SEQ ID NO. 4) wherein R and R' have the same meanings as defined above wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.~~

19. (Cancelled)

20. (New) The reagent according to claim 1,
wherein said peptide is
R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Glu-Glu-R' (SEQ ID NO. 4)
wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

21. (New) The method according to claim 4,

wherein said peptide is

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R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Leu-Glu-Glu-R' (SEQ ID NO. 4)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.

22. (New) The method according to claim 11,

wherein said peptide

R-Lys-Gln-Lys-Leu-Leu-Phe-Leu-Leu-Glu-Glu-R' (SEQ ID NO. 4)

wherein R represents a hydrogen atom or an amino-protecting group and R' represents OH or NH₂.